

# PATENT COOPERATION TREATY

TRANSLATION

From the  
INTERNATIONAL SEARCHING AUTHORITY

## PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing **See form PCT/ISA/210**  
(day/month/year)

Applicant's or agent's file reference

**OA04147/CD**

**FOR FURTHER ACTION**

See paragraph 2 below

International application No.

**PCT/FR2005/000476**

International filing date (day/month/year)

**28.02.2005**

Priority date (day/month/year)

**25.03.2004**

International Patent Classification (IPC) or both national classification and IPC

**A61K7/021**

Applicant

**L'OREAL**

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/EP

Authorized officer

Facsimile No.

Telephone No.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/FR2005/000476

Box No. 1

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.  
☐ This opinion has been established on the basis of a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material  
☐ a sequence listing  
☐ table(s) related to the sequence listing
  - b. format of material  
☐ in written format  
☐ in computer readable form
  - c. time of filing/furnishing  
☐ contained in the international application as filed.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/FR2005/000476

<b>Box No. V</b>	<b>Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</b>		
<b>1. Statement</b>			
Novelty (N)	Claims	<u>1-31, 42, 44-46, 50</u>	YES
	Claims	<u>32-41, 43, 47-49, 51-57</u>	NO
Inventive step (IS)	Claims	<u>1-31, 42, 44-46, 50</u>	YES
	Claims	<u>32-41, 43, 47-49, 51-57</u>	NO
Industrial applicability (IA)	Claims	<u>1-57</u>	YES
	Claims	<u></u>	NO
<b>2. Citations and explanations:</b>			
<p>The present application relates to cosmetic or pharmaceutical compositions containing at least one polymer comprising at least one monomeric compound of formula (I); a cosmetic method using the said compositions; monomeric compounds of formula (I); polymers comprising at least one such monomeric compound; and the use of at least one such monomeric compound or at least one such polymer in a composition for the purpose of conferring optical effects thereon, in particular fluorescence or optical brightener effects.</p> <p>Reference is made to the following documents cited in the search report:</p> <p>D1: BEER, ALEXANDER ET AL: "Ferroelectric siloxane homopolymers and fluorescent copolymers" FERROELECTRICS, 181(1-4, PROCEEDINGS OF THE FIFTH INTERNATIONAL CONFERENCE ON FERROELECTRIC LIQUID CRYSTALS, 1995, PT. 4), 249-260 CODEN: FEROA8; ISSN: 0015-0193, 1996, XP009050341</p> <p>D2: HU C ET AL: "Synthesis and luminescence of novel emitting copolymers" SYNTHETIC METALS, ELSEVIER SEQUOIA, LAUSANNE, CH, vol. 102, 1999, pages 1129-1130, XP002300038 ISSN: 0379-6779</p> <p>D3: WO 01/81654 A (ONDEO NALCO COMPANY) 1 November 2001 (2001-11-01)</p> <p>D4: EP-A-0 728 775 (BAYER AG) 28 August 1996 (1996-08-28)</p> <p>D5: US-A-5 626 839 (SCALES-MEDEIROS VIRGINIA) 6 May 1997 (1997-05-06)</p> <p>D6: GRABCHEV I ET AL: "Synthesis of Some Unsaturated 1,8-</p>			

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/FR2005/000476

Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

- Naphthalimide Dyes" DYES AND PIGMENTS, ELSEVIER APPLIED SCIENCE PUBLISHERS, BARKING, GB, vol. 28, no. 1, 1995, pages 41-46 XP004033226 ISSN: 0143-7208
- D7: KONSTANTINOVA T N ET AL: "THE SYNTHESIS OF SOME 1,8-NAPHTHALIC ANHYDRIDE DERIVATIVES AS DYES FOR POLYMERIC MATERIALS" DYES AND PIGMENTS, ELSEVIER APPLIED SCIENCE PUBLISHERS, BARKING, GB, vol. 22, no. 3, January 1993 (1993-01), pages 191-198, XP000387701 ISSN: 0143-7208
- D8: BEER A ET AL: "FLUORESCENT FERROELECTRIC LIQUID CRYSTALLINE COPOLYACRYLATES" LIQUID CRYSTALS, TAYLOR AND FRANCIS LTD, LONDON, GB, vol. 19, no. 5, 1 November 1995 (1995-11-01), pages 565-572, XP000556993 ISSN: 0267-8292
- D9: US 2004/023159 A1 (SAKAYORI KATSUYA) 5 February 2004 (2004-02-05)
- D10: BOJINOV, VLADI/18 - (C) FILE CAPLUS: "Synthesis and photophysical investigations of novel polymerizable blue emitting fluorophores - combination of a hindered amine with a benzo[de]isoquinoline-1,3-dione" MACROMOL. CHEM. PHYS., vol. 205, 2004, pages 1259-1268, XP009050355

D1 describes fluorescent monomers which form part of polysiloxane polymers. The compound "dye monomer 3" on page 250 falls within the scope of claim 32. Accordingly the subject matter of claims 32-39, 41, 43, 47-49, 53, 54 and 57 is not novel (PCT Article 33(2)).

D2 describes electroluminescent polymers containing monomers "TM", which have polymerizable groups corresponding to those of the present application (see diagram on page 1129). Accordingly the subject matter of claims 32-34, 36-41, 43, 47, 48 and 57 is not novel.

D3 describes fluorescent monomers which are derived from 1,8-naphthalimide and which carry a polymerizable group (pages 5-7; claims). Examples 1, 3, 6, 7, 9, 12-14 show specific compounds and the corresponding polymers. Accordingly the subject matter of claims 32, 33, 36, 37, 39, 43, 47-49 and 51-57 is not novel.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/FR2005/000476

Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

D5 describes self-tanning cosmetic compositions containing a self-tanning agent and a fluorescent dye such as naphthalimide (column 5, lines 13-23 and claim 1).

The use of compounds of formula (I) of the present application or the corresponding polymers in cosmetology or pharmacy is neither described nor suggested in the prior art. The subject matter of claims 1-31, 42, 44-46 and 50 therefore meets the requirements of PCT Article 33(2) and (3).

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

**TRANSLATION**  
**PCT**

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing **See form PCT/ISA/210**  
(day/month/year)

Applicant's or agent's file reference

**OA04147/CD**

**FOR FURTHER ACTION**

See paragraph 2 below

International application No.

**PCT/FR2005/000476**

International filing date (day/month/year)

**28.02.2005**

Priority date (day/month/year)

**25.03.2004**

International Patent Classification (IPC) or both national classification and IPC

**A61K7/021**

Applicant

**L'OREAL**

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/EP

Authorized officer

Facsimile No.

Telephone No.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/FR2005/000476

Box No. I

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐

This opinion has been established on the basis of a translation from the original language into the following language

\_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under

Rule 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

- a. type of material

☐

a sequence listing

☐

table(s) related to the sequence listing

- b. format of material

☐

in written format

☐

in computer readable form

- c. time of filing/furnishing

☐

contained in the international application as filed.

☐

filed together with the international application in computer readable form.

☐

furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/FR2005/000476

**Box No. V** Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

**1. Statement**

Novelty (N)	Claims	<u>1-31, 42, 44-46, 50</u>	YES
	Claims	<u>32-41, 43, 47-49, 51-57</u>	NO
Inventive step (IS)	Claims	<u>1-31, 42, 44-46, 50</u>	YES
	Claims	<u>32-41, 43, 47-49, 51-57</u>	NO
Industrial applicability (IA)	Claims	<u>1-57</u>	YES
	Claims		NO

**2. Citations and explanations:**

The present application relates to cosmetic or pharmaceutical compositions containing at least one polymer comprising at least one monomeric compound of formula (I); a cosmetic method using the said compositions; monomeric compounds of formula (I); polymers comprising at least one such monomeric compound; and the use of at least one such monomeric compound or at least one such polymer in a composition for the purpose of conferring optical effects thereon, in particular fluorescence or optical brightener effects.

Reference is made to the following documents cited in the search report:

- D1: BEER, ALEXANDER ET AL: "Ferroelectric siloxane homopolymers and fluorescent copolymers" FERROELECTRICS, 181(1-4, PROCEEDINGS OF THE FIFTH INTERNATIONAL CONFERENCE ON FERROELECTRIC LIQUID CRYSTALS, 1995, PT. 4), 249-260 CODEN: FEROA8; ISSN: 0015-0193, 1996, XP009050341
- D2: HU C ET AL: "Synthesis and luminescence of novel emitting copolymers" SYNTHETIC METALS, ELSEVIER SEQUOIA, LAUSANNE, CH, vol. 102, 1999, pages 1129-1130, XP002300038 ISSN: 0379-6779
- D3: WO 01/81654 A (ONDEO NALCO COMPANY) 1 November 2001 (2001-11-01)
- D4: EP-A-0 728 775 (BAYER AG) 28 August 1996 (1996-08-28)
- D5: US-A-5 626 839 (SCALES-MEDEIROS VIRGINIA) 6 May 1997 (1997-05-06)
- D6: GRABCHEV I ET AL: "Synthesis of Some Unsaturated 1,8-



WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/FR2005/000476

Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

- Naphthalimide Dyes" DYES AND PIGMENTS, ELSEVIER APPLIED SCIENCE PUBLISHERS, BARKING, GB, vol. 28, no. 1, 1995, pages 41-46 XP004033226 ISSN: 0143-7208
- D7: KONSTANTINOVA T N ET AL: "THE SYNTHESIS OF SOME 1,8-NAPHTHALIC ANHYDRIDE DERIVATIVES AS DYES FOR POLYMERIC MATERIALS" DYES AND PIGMENTS, ELSEVIER APPLIED SCIENCE PUBLISHERS, BARKING, GB, vol. 22, no. 3, January 1993 (1993-01), pages 191-198, XP000387701 ISSN: 0143-7208
- D8: BEER A ET AL: "FLUORESCENT FERROELECTRIC LIQUID CRYSTALLINE COPOLYACRYLATES" LIQUID CRYSTALS, TAYLOR AND FRANCIS LTD, LONDON, GB, vol. 19, no. 5, 1 November 1995 (1995-11-01), pages 565-572, XP000556993 ISSN: 0267-8292
- D9: US 2004/023159 A1 (SAKAYORI KATSUYA) 5 February 2004 (2004-02-05)
- D10: BOJINOV, VLAD1/18 - (C) FILE CAPLUS: "Synthesis and photophysical investigations of novel polymerizable blue emitting fluorophores - combination of a hindered amine with a benzo[de]isoquinoline-1,3-dione" MACROMOL. CHEM. PHYS., vol. 205, 2004, pages 1259-1268, XP009050355

D1 describes fluorescent monomers which form part of polysiloxane polymers. The compound "dye monomer 3" on page 250 falls within the scope of claim 32. Accordingly the subject matter of claims 32-39, 41, 43, 47-49, 53, 54 and 57 is not novel (PCT Article 33(2)).

D2 describes electroluminescent polymers containing monomers "TM", which have polymerizable groups corresponding to those of the present application (see diagram on page 1129). Accordingly the subject matter of claims 32-34, 36-41, 43, 47, 48 and 57 is not novel.

D3 describes fluorescent monomers which are derived from 1,8-naphthalimide and which carry a polymerizable group (pages 5-7; claims). Examples 1, 3, 6, 7, 9, 12-14 show specific compounds and the corresponding polymers. Accordingly the subject matter of claims 32, 33, 36, 37, 39, 43, 47-49 and 51-57 is not novel.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/FR2005/000476

Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

D5 describes self-tanning cosmetic compositions containing a self-tanning agent and a fluorescent dye such as naphthalimide (column 5, lines 13-23 and claim 1).

The use of compounds of formula (I) of the present application or the corresponding polymers in cosmetology or pharmacy is neither described nor suggested in the prior art. The subject matter of claims 1-31, 42, 44-46 and 50 therefore meets the requirements of PCT Article 33(2) and (3).